

IN THE CLAIMS:

Change "CLAIMS" to -- I claim: --.

Claims 1-3 (canceled).

1 4. (new) A data storage and retrieval system comprising:
2 an optical memory constituted as a vitreous fluorescent
3 photosensitive body selected from the group which consists of
4 fluorescent photosensitive glass and fluorescent photosensitive
5 vitreous ceramic constituting an information recording medium; and
6 at least one laser for directing a beam at said memory
7 and adapted to read stored information from and write information
8 to be stored to said memory.

1 5. (new) The system defined in claim 4 wherein said
2 memory is composed of a fluorescent photo-sensitive glass.

1 6. (new) The system defined in claim 4 wherein said
2 memory is composed of a vitroceramic.

1 7. (new) The system defined in claim 4 which comprises
2 a confocal microscope;
3 a tunable laser having light pulses at a rate of a
4 maximum of 100 fs for reading and writing from and to said memory
5 through said confocal microscope;

6 a vertical scanning system and a radial scanning system
7 for the movement or writing and excitation beams over said memory;
8 an engine for rotating said memory; and
9 (P)2 an excitation laser having a beam perpendicular to a
10 fluorescent beam from said memory and provided with a vertical
11 scanner for reading said memory by a one-photon process.